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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/686,870

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Thomas J. Laginess

IN-5698

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26922

7590

10/06/2005

BASF CORPORATION
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EXAMINER

BERMAN, SUSAN W

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,870

Applicant(s)

LAGINESS ET AL.

Examiner

Susan W. Berman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Response to Arguments

It is noted that claims 1-20 remain in the application. See the original claims filed.

Applicant argues that the Fenn et al references teach amounts of photoinitiator outside the instantly claimed range of 0.1 to 0.95 % by weight. Applicant further argues that it is unexpected that the low levels of initiator would cure to a non-tacky cure under UVA radiation exposure only or when exposed to daylight, without exposure to light from UV lamps. In response to the arguments the rejection have been restated under 35 USC 103(a). This argument is unpersuasive for the following reasons. The cited prior art teaches the same photoinitiators and photopolymerizable components as are set forth in the instant claims. Fenn et al also discuss the same UV-B to UV-A ratio in radiation exposure. Fenn et al teach exposure to UV radiation from 30 sec. to 10 min., preferably 1-3 minutes for cure. It is known in the art of radiation curing that the amount of photoinitiator and time and intensity of radiation exposure, among other factors, affect the cure time and level of cure. Therefore, one of ordinary skill in the art at the time of the invention would have been expected to have the expertise to determine the amount of photoinitiator, intensity and duration of radiation exposure required to cure a particular composition from the disclosure of Fenn et al. There is no comparative data of record to show that the use of less photoinitiator in the instantly claimed compositions compared with the compositions taught by Fenn et al provides unexpected results.

Claim Objections

Claim 9 is objected to because of the following informalities. Claim 9, line 3, contains a misspelling "benziketals" and it is not clear whether applicant intends to set forth "benzylketals" or "benzil ketals". It is noted that the same misspelling appears in the specification. Appropriate correction is required.

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Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3,4 and 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3 and 4 use improper Markush language in the phrase "selected from the group consisting of...cyclohexyl acrylate and octyl acrylate and mixtures thereof" or "selected from the group consisting of...acid and esters...and mixtures thereof". The first occurrence of "and" should be deleted. Claim 11 uses improper Markush language in step "B"; the first occurrence of "and" before "natural" should be deleted. Claim 12 uses improper Markush language in line 4; the first occurrence of "and" before "esters of acrylic acid" should be deleted. Claim 13 uses improper Markush language in line 4; the first occurrence of "and" before "octyl acrylate" should be deleted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fenn et al (6,838,177). See the Abstract, column 1, lines 4-25, column 3, line 29, to column 4, line 62, column 5, lines 13-32, and the examples. Fenn et al teach compositions wherein the weight percents of components are within the instantly claimed ranges except for the amount of photoinitiator being from 1-8 % by

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weight. However, It would have been obvious to one skilled in the art at the time of the invention to employ less photoinitiator, such as an amount of 0.98% by weight included in the instant claims, in the composition disclosed by Fenn et al from the teaching of Fenn et al. Fenn et al teach using as little as 1% photoinitiator and 0.98% by weight is within range of 1 weight percent considering significant figures with respect to measurement. It would have been obvious to one skilled in the art at the time of the invention to determine the amount of photoinitiator, intensity and duration of radiation exposure required to cure a particular composition from the disclosure of Fenn et al. One of ordinary skill in the art at the time of the invention would have been motivated by a reasonable expectation of obtaining a cured composition by varying such factors as time or intensity of light exposure. There is no comparative data of record to show that the use of less photoinitiator in the instantly claimed compositions compared with the compositions taught by Fenn et al provides unexpected results. With respect to claim 18, Fenn et al teach polymerization by exposure to UVA light but do not mention polymerization by exposure to natural light conditions. It would have been obvious to one skilled in the art at the time of the invention to substitute natural light exposure for UVA light exposure because natural light provides exposure to UVA radiation. One of ordinary skill in the art at the time of the invention would have been motivated by an expectation that the disclosed compositions would cure when exposed to natural light.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

WO 01/74499 (Fenn et al) is cited as cumulative of Fenn et al '177

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB
10/3/05



Susan W Berman
Primary Examiner
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